State CIO Agency IT Plans 2007 – 2009 Biennium



North Carolina Department of State Treasurer IT Plan

Prepared by: William Golden, Deputy Treasurer & CIO

September, 2006

State CIO Departmental/Agency IT Plans 2007-2009 Biennium

NC Department of State Treasurer IT Plans

September 2006

Table of Contents

CHAPTER 1 - DEPARTMENTAL/AGENCY STRATEGIC BUSINESS INITIATIVES AND MAJOR BUSINESS REQUIREMENTS	
CHAPTER 2 - REQUIREMENTS FOR TRANSITIONING EXISTING IT ACTIVITIES/RESOURCES	9
CURRENT PROJECTS	9
APPLICATIONS	11
INFRASTRUCTURE ASSETS	14
OPERATIONS/IT MANAGEMENT	14
Human Resources	16
CHAPTER 4 - IT INITIATIVES DEVELOPED FROM AND ALIGNING W	
PLAN DRIVERS	18

Chapter 1 - Departmental/Agency Strategic Business Initiatives and Major Business Requirements

The Department of State Treasurer (DST) is the state's lead fiduciary overseeing and protecting assets valued at more than \$75 billion. Such work demands the highest levels of prudence, security and trust, and above all else, a commitment to excellence. These principles guide DST as we carry out our responsibilities and are reflected in initiatives listed in this plan. The department is broken into six divisions: Retirement, Investments, State and Local Government, Financial Operations, Unclaimed Property / Escheats and Information Technology. Below is a description of each division, their mission within the department and key business / IT objectives.

The Retirement Systems Division administers the statutory retirement and benefit plans, as authorized by the General Assembly of North Carolina, which cover public employees in the State. The administration of the several retirement systems requires a high level of fiduciary responsibility for the employees' trust funds with prudent, honest and efficient use of employees' and taxpayers' contributions. The purpose of the retirement systems and benefit plans is to recruit and retain skilled employees for a career in public service, by providing a replacement income for retirement, disability, or at death for an employee's survivors.

The General Assembly (GA) has approved the replacement of six mainframe applications with an integrated information technology system for the Retirement Systems Division (RSD). The GA has provided planning funds as well as the first two years of a multi-year funding to build this system for (RSD). The project has received full approval from State ITS. The current retirement information system is actually a combination of six mainframe applications all developed independently and put in place in the 1970's. These systems are outdated, have been modified extensively, are difficult to maintain or enhance, cannot interact with each other, and are badly in need of replacement and upgrading. Furthermore, documentation is inadequate and out of date, and access to the mainframe data stores for web applications is problematic at best. RSD must presently cope with outdated automated processes running on an aging, fragmented information infrastructure and excessive manual procedures to meet the needs of its membership. This results in operational inefficiencies and inconsistent information being provided to active members and retirees. At the same time, increasing constituent demands stem from the public's recognition of today's opportunities for faster access to more accurate information- for example. via the Internet.

In an effort to address this fragmentation and inefficiency, the General Assembly in the 2003-05 short session budget included authorization and funding to

replace the multitude of information technology systems with an integrated system for all the retirement plans and other programs administered by RSD. The Retirement System's technology initiative (heretofore referenced as the IRSP) has been given a new project name. Moving forward, the new system will be referred to as ORBIT: Online Retirement Benefits through Integrated Technology. The ORBIT moniker was conceived and selected by the staff to convey the system's mission of providing service possibilities for tomorrow's users.

The Division continues to make progress in a four year project to rebuild its technology infrastructure. Once ORBIT is completed in October 2007, retirees, actives and employers will be able to conduct many transactions online, 24 hours a day

The Investment Management Division serves as the investment arm for DST. Its functions can be categorized into two major areas of responsibility: 1) management of the combined assets of the North Carolina Retirement Systems (Trust Funds Investment Program) and 2) management of the assets of the Cash Management Program. The Division is designed so that the organizational structure is as flat as possible. This allows for greater efficiencies in managing a very complex investment program. The State Treasurer administers both the Cash Management and Trust Funds Investment Program. As such, the Treasurer is directed by statute to "establish, maintain, administer, manage and operate" investment programs for all funds on deposit, pursuant to the applicable statutes. In doing so, the Treasurer "shall have full power as a fiduciary" and shall manage the investment programs so that the assets "may be readily converted into cash as needed." As of June 30, 2005, total assets under management were nearly \$73.5 billion. Of this amount, 12% was assets of the Cash Management Program and 88% was assets of the Trust Funds Investment Program. This total represents the aggregate assets of several retirement systems, various other trust funds and the General and Highway Funds. In establishing the comprehensive management program, the State Treasurer, utilizing a professional investment staff, has developed an investment strategy for each portfolio that recognizes the guidelines of the governing General Statues, and provides diversification as appropriate for the participants. The Information Technology needs for the division are currently met by several applications. These applications are listed and described in the plan and no major enhancements are needed at this time.

The State and Local Government Finance Division is organized to provide the State Treasurer, the Local Government Commission, the North Carolina Solid Waste Management Capital Projects Financing Agency, the North Carolina Infrastructure Finance Corporation and the North Carolina Capital Facilities Finance Agency with staff assistance in fulfilling their respective statutory functions. The Division is organized along functional lines into two major groups of services: Debt Management and Fiscal Management. The Local Government

Commission (LGC) provides assistance to local governments and public authorities in North Carolina. The LGC, staffed by the Department of State Treasurer, approves the issuance of debt for all units of local government and assists these units with fiscal management. The Commission is composed of nine members: the State Treasurer, the Secretary of State, the State Auditor, the Secretary of Revenue, and five others by appointment (three by the Governor, one by the General Assembly upon the recommendation of the President Pro Tempore and one by the General Assembly upon the recommendation of the Speaker of the House). The State Treasurer serves as Chairman and selects the Secretary of the Commission, who heads the administrative staff serving the Commission.

The State and Local Government Finance Division handles the sale and delivery of all State and local debt and monitors the repayment of State and local government debt. The Division issues and monitors all State debt, including debt secured by a pledge of the taxing power of the State and debt for which repayment is subject to appropriation. After voter approval of a bond issue and with the assistance of other State agencies, the Division determines the cash needs, plans for the repayment of debt (maturity schedules) and schedules bond sales at the most appropriate time. An official statement describing the bond issue and other required disclosures about the State is prepared with the advice and cooperation of bond counsel. Finally, the Division handles the actual sale and delivery of the bonds, maintains the State bond records and registration of bonds and monitors the debt service payments. At June 30, 2005, the State had general obligation bonds outstanding of \$5.7 billion and Certificates of Participation and Lease-Purchase bonds outstanding of \$740.2 million. In performing these duties, the Finance Division currently files hard copies of several documents, including audit reports, audit review letters, response letters. local government general obligation bond applications and attachments, final IP contracts, and other technical forms. Imaging these documents will enable the SLGFD to more quickly and efficiently respond to inquiries from state agencies and local governments. Space limitations will not be of major concern. Data will be easier to retrieve. Also, in case of disaster, copies of important documents will be kept easily somewhere off-site. The business processes in both the Fiscal Management and Debt Management Section of the State and Local Government Finance Division, are very paper intensive. Implementing an Integrated Document Management System (IDMS) would improve the efficiency of the divisional personnel, provide for more accurate and secure storage of documents and improve customer service. The GA has approved funds to hire a consultant to: 1) document current business processes and workflows, 2) prepare business and technical requirements for the new system, 3) prepare a request for proposals, 4) research and provide a list of potential vendors, 4) develop a high level project plan, 5) develop a high level risk analysis, and 6) develop an estimated budget for the implementation.

The Debt Management Section of The State and Local Government Division issues and monitors all State debt secured by a pledge of the taxing power of the State. The Debt Management Section also is responsible for the authorization and sale of revenue bonds for the North Carolina Medical Care Commission, the Municipal Power Agencies, the North Carolina Capital Facilities Finance Agency, the North Carolina Housing Finance Agency and the North Carolina Solid Waste Management Capital Projects Financing Agency. After voter approval of a bond issue and with the assistance of other State agencies, the Division determines the cash needs, plans for the repayment of debt (maturity schedules), and schedules bond sales at the most appropriate time. An official statement describing the bond issue and other required disclosures about the State is prepared with the advice and cooperation of bond counsel. Finally, the Division handles the actual sale and delivery of the bonds, maintains the State bond records and registration of bonds, and monitors the debt service payments. The system currently being used to monitor this debt was created in 1971 and needs to be discontinued and replaced with a system which is suited to monitor the great deal of debt and massive refunding which are common today. The current systems in place are difficult to use, difficult to maintain, extremely inflexible, do not provide timely and accurate information to our internal and external customers. Additionally, it is not equipped to monitor derivative products and variable rate debt. The General Assembly (GA) has approved funding to hire a consultant to: 1) document current business processes and workflows, 2) prepare business and technical requirements for the new system, 3) prepare a request for proposals, 4) research and provide a list of potential vendors, 4) develop a high level project plan, 5) develop a high level risk analysis, and 6) develop an estimated budget for the implementation.

The Financial Operations Division is responsible for ensuring that efficient banking services are provided to all State agencies and institutions. It also ensures that all funds deposited, invested, and disbursed through the State Treasurer are properly accounted for and reported. The accounting functions include accounting for investments, pension funds, trust funds, and State debt. Departmental support functions include budget preparation and control, cash management, payroll, purchasing, and accounts payable for the various divisions. Reconciliation functions include reconciling depository bank account statements and reconciling budgetary accounts with the Office of State Controller. The Division is comprised of four sections: Banking Operations, Bank Reconciliation Unit, Statewide Operations and Departmental Operations. The major Information Technology System that supports the division is the Core Banking System. This system is relatively new and further support documentation is contained below.

The Unclaimed Property / Escheats Division oversees and maintains the state's database of unclaimed property. By law, these funds are escheated, or turned over, to the department for safekeeping. The Department is responsible for recovering and returning such property to all rightful owners. In recent years, the

Department has increased compliance and outreach, doubling the amount of money coming into the fund. This new money, along with prudent investments, has increased the fund to more than \$500 million. The interest earned on these funds is sent to the State Education Assistance Authority for student loans and grants. In fiscal year 2005, a total of \$27,255,262 was earned and given to SEAA to help 50,000 North Carolinians afford college. The funds in this program were previously held by financial institutions, insurance companies, businesses and other government agencies in the form of wages, utility deposits and insurance policy proceeds. Property is considered unclaimed when the apparent owner fails to communicate interest in it for a period of time called the dormancy period. Once the property has met its dormancy limit and the holder has exhausted their resources in locating the owner, the names, addresses and any funds they are holding are escheated to the State Treasurer's Office.

There are currently two active IT initiatives under way in the division. The first initiative is the implementation of a document management information system. The Unclaimed Property Division of the Department of State Treasurer maintains a database of the names and address of owners of unclaimed property and is responsible for recovering and returning such property to all rightful owners. Currently, the division processes holdings and claims for over 30,000 holders and 25,000 claimants a year. In the past two years, the volume of holder reports has increased by 119%, the number of claims received has increased by 340%, and the number of claims processed has increased by 149%. With the implementation of our website, which had over 2,800,000 hits/searches in FY2003, and the public awareness of the Unclaimed Property Program through outreach events, media coverage, and holder teleconferences, the volume of records has increased tremendously. With this increase in volume, the current manual / paper system is grossly inadequate. Most documents are in nonelectronic form, creating a disaster recovery risk. Also with the volume of records, there is a lot of time wasted searching for documents. Historical records need to be assessable in order to process claims; however, they are currently stored on microfiche and/or film and are often illegible.

The objective of this project is to implement a Document Management System (imaging) to improve the work processes within the Unclaimed Property Program. The need to implement this system is significant due to the volume of paper documents received, produced, and processed by this Program, along with the desired ability to review historical records. The department has already performed a feasibility study along with the development of the requirements for the system. This request is for the funding of the implementation phase of the project.

Benefits: The following benefits would be realized from implementing the system.

- Increased efficiency in Claim and Reporting Processing
- Increased efficiency in Holder Reports Processing

- Increased quality of service to claimants and holders
- Reduced document processing time
- Improved accessibility to information
- Enhance document image quality
- · Reduced document storage space
- · Improved file management and security
- · Improved compliance auditing
- Improved disaster recovery capability
- · Increased the effectiveness of the unclaimed property web site

The objective of the second project is to purchase a software package that will enable the division to match database records with other public and private databases in order to locate property owned by various claimants. During fiscal year 03-04 the department conducted a pilot program that matched over 2,800 owners of unclaimed property totaling over \$2,000,000. By expanding the program it would allow us to perform data matches for Child Support Services, in order to locate non-custodial parents that owe money to custodial parents. Similar data matches could be performed with entities such as: NC Dept of Revenue; DMV; State Employees; State Retirees; community or civic organizations such as AARP and AAA; private industries such as financial institutions and manufacturers; etc. The potential would be unlimited. By taking a proactive stance, this would increase our efforts to contact constituents who might not be otherwise aware of property due to them. The following benefits would be realized from implementing the system.

- · Increased efficiency in matching property to the rightful owners
- The collection of outstanding debts owed governmental units such as Child Support and Department of Revenue.
- · Control workflow of staff
- · Public awareness of the Unclaimed Property Program
- · Build a better working relationship with NC businesses and organization.

Chapter 2 - Requirements for Transitioning Existing IT Activities/Resources

Current projects

Project Name: Integrated Retirement System Project (IRSP)

<u>Background:</u> The Online Retirement Benefits through Integrated Technology Project in the Retirement Systems Division has made significant progress since the last reporting period. The Retiree Payroll portion of the project went live, as scheduled, in January of this year. This represents a major change in the way that we pay and deliver services to the more than 195,000 retirees or their beneficiaries who are currently receiving benefits from the pension systems we administer.

<u>Current Status:</u> The Active Member implementation (Go Live October 1, 2007) is on schedule and slightly under budget in expenses.

The project team supports the Retiree Payroll Services including the self-Service component which currently has almost 8,000 registered retirees / benefit recipients.

- Completed the following Active Member deliverables:
 - Rollout Plan
 - Installation and Configuration of LOB Application
 - Completion of Data Bridging Plan
 - Active Member Detailed Requirements Definition
- Continued the Active Member implementation activities which is the second of two (2) implementation activities, the first implementation was the Retiree Payroll.
 - Completed a review of the existing business processed, identified and documented the changes desired for the Active Member implementation,
 - Completed the review of the existing software functionality against the
 requirements and proposed business processes to determine the changes
 required to the software application, associated workflows, business
 processes and dependent tools. These were captured in the deliverable
 document named "Active Member Detailed Requirements Definition".
 - Kicked off the design activities. The project team is currently creating
 design documentation to capture the necessary business process and
 software details describing the desired changes to both and the definition
 of the proposed business process. The design documentation is used as a
 starting point for the construction activities, training plan and materials as
 well as the end-user documentation and the testing plans, scripts and
 materials.

<u>Project Name:</u> Unclaimed Property Program – Integrated Document Management System (UPP-IDMS)

Background: The Unclaimed Property Division of the Dept. of the State Treasurer manages over 20,000 claims on escheated property and 30,000 reports of abandoned assets each year. Almost the entire operation process relies on physical documents. While a limited number of documents are available in microfilm and CD, the claim processing staff of the division expend over 500 hours each year in document retrieval and management activities. The DST Unclaimed Property Division in conjunction with the Information Technology Division proposed the development of an electronic document management system (UPP-IDMS) to increase operational efficiency and provide a secure and recoverable repository of information for the Unclaimed Property Division. Funds have been allocated to cover expenditures related to the UPP-IDMS and the repository is expected to cost \$1.3 million over the five-year life of the repository and produce \$1.8 million in direct and imputed benefits as well as mitigate risk issues related to current methods of records storage.

<u>Current Status:</u> The Dept. of the State Treasurer has contracted with DTI Integrated Business Solutions of Greensboro, NC to design, develop, and implement an electronic system for document imaging and storage as well as provide automation for business processes. The proposed system will utilize Documentum ApplicationXtender and Documentum WorkflowXtender from EMC, the document management solution already implemented in the Retirement Services Division. As part of this project, existing historical documents currently housed on microfilm, microfiche, CD-ROM, and paper will be converted to an electronic format suitable for use with the new document repository.

The project is currently in the Planning & Design Stage and the vendor has recently completed an assessment of current business processes and departmental requirements. This assessment will be the foundation for system design activities scheduled to occur through the end of 2006. The vendor is also in the process of preparing samples of converted documents for evaluation and determining the procedure by which document conversion will occur throughout the next several months. Development is scheduled to begin in January of 2007 and the system is expected to be operational early next summer.

Applications

Based on the output of the Applications Remediation Order Report the DST has developed a management migration plan, a roadmap, for each application. The chart on the following page provides an overall picture of the DST applications roadmap.

The current ORBIT (Online Retirement Benefits through Integrated Technology), or the IRSP Project has replaced two (2) legacy mainframe systems in 2006:

- Retirement Payroll
- Refund Payroll

There are four (4) systems being **Enhanced** in 2006 and they are as follows:

- Dynamics System this is a Microsoft product and it was upgraded to the current release and ported to a SQL Server 2005 database.
- HelpDesk System this is an internal DST application that is being rewritten in the .NET framework with some functional improvements.
- Inventory Supply System this is an old system developed with FoxPro and is being rewritten in the .NET framework with some functional improvements.
- Retirement Communications Tracking System this is an internal DST application that tracks all communications within the Retirement Systems Division, such as phone calls, emails, faxes, etc. This system is being enhanced to add business functionality and to provide integration with the ORBIT System. It will be replaced in 2008 by a COTS Customer Relationship Management (CRM) System.

When Phase VI of the IRSP Project goes live in October, 2007 the following systems will also be replaced:

- Retirement Contributor Label System
- Contributory Death Benefits System
- Disability System
- Fire and Rescue Department Maintenance System
- Fire and Rescue Contribution System
- Integrated Desktop System
- Online Forms System
- Refund Transition System
- Rethost System
- Retirement Benefits Estimator System
- Retirement Transition System
- State Treasurer's Accounts Receivable System

Retirement Active Members System

The Faulkenbury System will be **Retired** at the end of 2007 when it is anticipated all the claims will be resolved related to this lawsuit.

There are two (2) systems scheduled for **Enhancements** in 2007 and they are:

- Core Banking System This enhancement will include a technology upgrade to the servers, the OS and the DBMS. The application will not be upgraded at this time.
- Bond System Begin the process of replacing this semi-automated system currently in place, integrate this system with the LOGICS system used in Fiscal Management and coordinate the implementation with the implementation of an Integrated Document Management System to take advantage of the workflow functionality.

The following systems will be **maintained** in 2007:

- Dynamics System
- HelpDesk System
- Retirement IDMS
- Inventory Supply System
- Logics System
- Portfolio Managers Registration System
- Retirement Communications Tracking System
- Unclaimed Property Management System
- Unclaimed Property Search System
- Unisys Infolmage System

DST CURRENT APPLICATIONS - ROADMAP

Application Name	2006	2007	2008	2009	2010
Faulkenbury System	Maintain	Retire			
Applicant Tracking System	Maintain	Replace			
Retirement Contributor Label System	Maintain	Replace			
Contributory Death Benefits System	Maintain	Replace			
Disability System	Maintain	Replace			
Fire & Rescue Department Maintenance System	Maintain	Replace			
Fire & Rescue Contribution System	Maintain	Replace			
Integrated Desktop System	Maintain	Replace			
Online Forms System	Maintain	Replace			
Refund Transition System	Maintain	Replace			
Rethost System	Maintain	Replace			
Retirement Benefits Estimator System	Maintain	Replace			
Retirement Transition System	Maintain	Replace			
State Treasurer's Accounts Receivable System	Maintain	Replace			
Time and Attendance System	Maintain	Replace			
Retirement Active Members System Online Retirement Benefits through Integrated Technology	Maintain	Replace			
System	Maintain	Maintain	Maintain	Maintain	Maintain
Dynamics System	Enhance	Maintain	Enhance	Maintain	Enhance
Help Desk System	Enhance	Maintain	Maintain	Enhance	Maintain
Retirement Integrated Document Management System	Maintain	Maintain	Maintain	Maintain	Maintain
Inventory Supply System	Enhance	Maintain	Maintain	Maintain	Maintain
Logics System	Maintain	Maintain	Enhance	Maintain	Maintain
Portfolio Managers Registration System	Maintain	Maintain	Maintain	Maintain	Maintain
Retirement Communications Tracking System	Enhance	Maintain	Replace		
Unclaimed Property Management System	Maintain	Maintain	Maintain	Maintain	Maintain
Unclaimed Property Search System	Maintain	Maintain	Maintain	Maintain	Maintain
Unisys Infolmage System	Maintain	Maintain	Maintain	Maintain	Maintain
Bond System	Maintain	Enhance	Maintain	Maintain	Maintain
CORE Banking System	Maintain	Enhance	Maintain	Maintain	Maintain
Refund Payroll System	Replace				
Retirement Payroll	Replace				

Infrastructure Assets

As a general rule, the IT infrastructure refresh has been consistent and economical, while meeting business needs, service levels, transaction growth, disaster recovery requirements, etc. The following list outlines several infrastructure projects that will need to happen in the next few years.

- 1) Desktop / Laptop Refresh Approximately 1/3 of Department of State Treasurer's desktops are replaced each year to coincide with the 3 year maintenance that is purchased with each PC. We have found this to be adequate and the budget currently exists to continue this effort.
- **2) Core Banking Servers Replacement** The Core Banking System application and database servers are approaching the end of their lifecycle. Maintenance costs are increasing each year and the hardware is not capable of supporting newer Operating System and newer peripherals. This replacement is scheduled to occur within the next twelve months.
- **3) Electrical / UPS Upgrade** Minor upgrades will need to take place over the next year in order to support the anticipated growth of the State Treasurers Department.
- **4) Exchange 2003 Upgrade** The State Treasurer is currently running Exchange 2000 to provide Email support to the department. To support current as well as future business and application needs we need to upgrade to a more current version. The new version is also needed for the new online Retirement System (ORBIT) to integrate its new functionality.
- **5) SAN Upgrade/Replacement** This is necessary to support the increased business needs and availability of data. To provide the 24x7 availability the SAN must be capable of 99.995% availability. This can only be achieved with the newer technology.

Operations/IT management

From an assessment of the current policies, processes, and procedures and practices for the management of IT, the following initiatives are being considered:

1) ITIL Compliance – It is our intention to start moving toward adopting ITIL. As a first step, NCDST will undergo a gap analysis to get specific recommendations on how to improve IT service support and delivery. From this analysis, we will consider the areas needing improvement and formulate a plan of action to bring us to full ITIL compliance.

- **2) Mobile Data Encryption** We are currently studying the requirements for implementation of full hard drive encryption on mobile device to protect sensitive data and unauthorized access. We hope to have this in-place by the end of the current fiscal year.
- **3) Improve Disaster Recovery Capability** DST is always looking to decrease the cost of DR services while improving our capabilities. This year we leveraged the ITS Disaster Recovery services contract to provide for a lower cost. We hope to use our cost savings to increase our abilities and possible use data replication.
- 4) Demonstrate technical compliance with information security requirements (ISO 17799) An ISO17799 based Information Security Program has been adopted since 2002. Since then, several assessments have been performed such as Security Program audit, penetration testing and various audits. An assessment looking at the technical security aspects in our IT environment is needed. Such assessment would review the following: technical security policies and standard, security configuration on network devices, servers and workstations, network perimeters vulnerabilities. This type of assessment reviews the technical implementation of security policies and standards with a possible certification attesting compliance. Possible critical application security assessment and certification will be considered.
- 5) Extend full Business Continuity testing services to divisions Existing Business and Disaster recovery planning efforts have been geared toward the recovery of Information technology services. Executive order 102 suggests a more comprehensive approach to business continuity. A gap analysis between existing BC/DR planning efforts and State Continuity of Operations planning guidelines will be performed. Specific recommendations on how to better extend business continuity planning to business divisions will be formulated and full COOP compliance will be achieved.
- 6) Improve Albemarle building physical security The current video surveillance system is outdated and needs replacement. The loading dock access does not meet our security needs and will be addressed. Some doors with security mechanism and security system may be needed. Two factor authentication will be considered for the server room and sensitive areas.

Human Resources

The process for contractor conversion is complete and it is our intention to only use supplemental staffing contractors for short term needs such as, mass installs, specific problem resolution, and short term projects. We currently have an adequate training budget for our needs. We could always use more staff in the application development area and networking support. As this time it is unknown if we are going to submit a request to the General Assembly for additional staff. Two other identified areas of need are:

- 1) Graphic Design Specialist to work with the Web Developers in designing changes and enhancements to the DST Website. This is a full time position as it involves not only the Internet Web site and all the Divisional home pages but also the Intranet Web site and all the Divisional home pages. Currently we outsource this function.
- 2) Business Continuity To extend business continuity to all divisions to a level that will satisfy executive order 102 by next year, we will need to either recruit part time assistance from the business divisions, and/or get an additional person on the IT BC/DR team to assist with the administration, coordination and maintenance of the BC/COOP plan.

Chapter 3 - IT Specific Economic-Driven Requirements or Opportunities

From assessments of IT resources, processes, and management practices we have identified the following IT specific economic driven opportunities that we hope to pursue:

- 1) SAN Replacement To maintain a 24x7 99.995% availability on a 3 year old SAN, the maintenance is more than the cost of purchasing a new SAN with a 3 year maintenance agreement. In addition, the newer SAN provides the technology to achieve the Service Level Agreement for our customers mentioned above with new hardware and software to guarantee availability.
- **2) PC refresh -** Maintenance for workstations 3+ years old, over 3 years, is greater that the purchase price of new workstations that include 3 year maintenance agreement. In addition they have faster processors, more memory, and the latest version of Windows software.
- **3) Server Replacement -** The maintenance cost for servers increase annually at a rate of 10%. As our applications are updated it requires new versions of the Operating System. The new Operating Systems require faster processors and more memory. Economically it makes more sense to replace production servers after 4 years or as the applications require.

Chapter 4 - IT Initiatives Developed From and Aligning With Plan Drivers

The IT initiatives below are derived from one or more items in Chapters 1 thorough 3 above:

INITIATIVE #1

Name: SAN Replacement

<u>Summary description:</u> Current 4 year old HP EVA will be replaced with an EMC Clariion 700CX.

<u>Major Objectives:</u> Increase the capacity for growth, provides 24x7 99.995% availability required by our business plan, financial savings over 3 years by replacing new hardware and eliminating the maintenance expense of old outdated hardware and provides software for management of Exchange, SQL, and ORACLE.

<u>Timeframe:</u> Complete by end of 1st quarter 2007

<u>Other Initiative Relationship:</u> This hardware is key to the ORBIT project and its 24x7 customer service agreement.

Costs: \$250,000

INITIATIVE # 2

Name: Core Banking Server Replacement

<u>Summary description</u>: Current HP servers with be replaced with newer servers with greater capacity and the ability to support the current Operation Systems and new releases of the IFLEX application

<u>Major Objectives:</u> Financial savings will be realized and the new servers will support the new OS and database software as well as new versions of the applications.

<u>Timeframe:</u> Complete by end of 1st quarter 2007

<u>Other Initiative Relationship:</u> This will provide the base for upgrading the Core Banking application to support an important departmental mission.

Costs: \$200,000

INITIATIVE #3

Name: Electrical and UPS Upgrade

<u>Summary description</u>: Provide additional and redundant data center battery backup capacity.

<u>Major Objectives:</u> Provide addition power supply to evenly distribute the UPS backup requirement for the datacenter and provide UPS redundancy in the event of failure.

Timeframe: 2007

<u>Other Initiative Relationship:</u> This will support the 24x7 business requirements for our customers in the event of a power failure for a short outage.

Costs: \$75,000

INITIATIVE #4

Name: Generator Upgrade

<u>Summary description</u>: Upgrade of our diesel generator to handle the increase power requirements in the event of a power failure.

<u>Major Objectives:</u> This will provide additional data center electrical backup to keep our systems available to our customers until street feed power is restored.

Timeframe: 2007

<u>Other Initiative Relationship:</u> This will support the 24x7 business requirements for our customers in the event of a power failure for a short outage.

Costs: \$250,000

INITIATIVE # 5

Name: Exchange Upgrade

<u>Summary description</u>: Install, customize, and migrate to the current version of Exchange from our present outdated version.

<u>Major Objectives:</u> To provide a stable and reliable product as well as a version that the ORBIT system can integrate with to provide the functionality promised to our users.

Timeframe: 2007 1st quarter

<u>Other Initiative Relationship:</u> The ORBIT Retirement system is dependent on this initiative to provide capabilities requested by our customers

Costs: \$30,000

INITIATIVE #6

Name: ITIL Assessment

<u>Summary description</u>: It is our intention to start moving toward adopting ITIL. As a first step, NCDST will undergo a gap analysis to get specific recommendations on how to improve IT service support and delivery. From this analysis, we will consider the areas needing improvement and formulate a plan of action to bring us to full ITIL compliance.

<u>Major Objectives:</u> Review current practices by auditing IT management processes. Audit the quality of current management processes. Provide an assessment outlining the processes weaknesses or lack of, as per recommended by ITIL guidelines.

Timeframe: 2007-2008

<u>Other Initiative Relationship:</u> OITS ITIL implementation and general enhancements to providing quality service.

Costs: \$75,000

INITIATIVE #7

Name: Mobile Data Encryption

Summary description: We are currently compiling requirements for implementation of full hard drive encryption on mobile device to protect sensitive data and unauthorized access. We hope to have this in-place by the end of the current fiscal year.

<u>Major Objectives:</u> Gather mobile data encryption requirements, acquire software and hardware if necessary, and implement data encryption on all existing and future laptops.

Timeframe: 2007

Other Initiative Relationship:

Costs: \$ 25,000

INITIATIVE #8

Name: ISO 17799 Audit

<u>Summary description</u>: An ISO17799 based Information Security Program has been adopted since 2002. Since then, several assessments have been performed such as Security Program audit, penetration testing and various audits. An assessment looking at the technical security aspects in our IT environment is needed. Such an assessment would review the following: technical security policies and standard, security configuration on network devices, servers and workstations, network perimeters vulnerabilities. This type of assessment reviews the technical implementation of security policies and standards with a possible certification attesting compliance. Possible critical application security assessment and certification will be considered.

<u>Major Objectives:</u> Define scope of assessment, select a vendor that will perform the assessment and provide a detailed report to include audit findings and assist in the resolving of the findings. Obtain certification once all findings have been addressed.

<u>Timeframe:</u> 2007-2008

Other Initiative Relationship: Continual improvement of our security program.

Costs: \$150,000

<u>INITIATIVE # 9</u>

Name: State and Local Government Integrated Document Management Study

<u>Summary description</u>: The General Assembly has approved funds to hire a consultant to study the feasibility of implementing a Integrated Document Management System

<u>Major Objectives:</u> 1) document current business processes and workflows, 2) prepare business and technical requirements for the new system, 3) prepare a request for proposals, 4) research and provide a list of potential vendors, 4) develop a high level project plan, 5) develop a high level risk analysis, and 6) develop an estimated budget for the implementation

Timeframe: 2008

<u>Other Initiative Relationship:</u> Implementing an Integrated Document Management System (IDMS) would improve the efficiency of the divisional personnel, provide for more accurate and secure storage of documents and improve customer service.

Costs: \$150,000

INITIATIVE # 10

Name: State and Local Government Debt Management System Study

<u>Summary description</u>: Replace an outdated application that is, difficult to maintain, extremely inflexible, and does not provide timely and accurate information to our internal and external customers.

<u>Major Objectives:</u> 1) document current business processes and workflows, 2) prepare business and technical requirements for the new system, 3) prepare a request for proposals, 4) research and provide a list of potential vendors, 4) develop a high level project plan, 5) develop a high level risk analysis, and 6) develop an estimated budget for the implementation.

Timeframe: 2008

<u>Other Initiative Relationship:</u> Implementing a modern debt management system would improve the efficiency of the divisional personnel and provide for more accurate debt tracking.

Costs: \$100,000

<u>INITIATIVE # 11</u>

Name: Unclaimed Property Name Matching

<u>Summary description</u>: Use data matching tools to match property owners to unclaimed property.

<u>Major Objectives:</u> Increase efficiency in matching property to the rightful owners, the collection of outstanding debts owed governmental units such as

Child Support and Department of Revenue, control workflow of staff, increase public awareness of the Unclaimed Property Program, and build a better working relationship with NC businesses and organization.

Timeframe: 2007

<u>Other Initiative Relationship:</u> Increase the ability to match owners to their unclaimed property.

Costs: \$100,000

INITIATIVE # 12

Name: Customer Relationship Management (CRM) System

<u>Summary description</u>: Replace the current Retirement Communications Tracking System with a COTS CRM System and integrate with the ORBIT System.

<u>Major Objectives:</u> The Retirement Systems Division desires to improve their ability to capture, track and analyze external contacts. The CRM system must be fully integrated with the ORBIT System as well as MS Office System.

Timeframe: December, 2008

<u>Other Initiative Relationship:</u> Improve the operational efficiency of the Retirement Division.

Costs: \$650,000 - \$750,000

INITIATIVE # 13

Name: Interactive Voice Response (IVR) System

<u>Summary description</u>: Replace the current antiquated IVR system with new technology which will be fully integrated with the ORBIT System.

<u>Major Objectives:</u> Increase reliability, and provide better service to the NC Employer Units, State Retirees and State employees

Timeframe: December, 2008

<u>Other Initiative Relationship:</u> Improve the operational efficiency of the Retirement Division.

Costs: \$150,000 - \$250,000

INITIATIVE # 14

Name: Improve Albemarle building physical security

<u>Summary description</u>: The current video surveillance system is outdated and needs replacement. The loading dock access does not meet our security needs and will be addressed. Some doors with security mechanism and security system may be needed. Two factor authentication will be considered for the server room and sensitive areas.

<u>Major Objectives:</u> Provide a more controlled access to the building by analyzing any existing weakness, plan for the remediation of those weaknesses and implement those plans. At a minimum, improve video surveillance.

Timeframe: 2007

Other Initiative Relationship: Continual improvement of our security program.

Costs: \$50,000